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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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20280	7590	01/09/2004	EXAMINER	
MOTOROLA INC 600 NORTH US HIGHWAY 45 LIBERTYVILLE, IL 60048-5343			CORSARO, NICK	
			ART UNIT	PAPER NUMBER
			2684	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/784,801

Applicant(s)

DORENBOSCH, JHEROEN P.

Examiner

Nick Corsaro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-9 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-9 and 11-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

RESPONSE TO AMENDMENT

Response to Arguments

1. Applicant's arguments filed 11/11/2003 have been fully considered but they are not persuasive.

The applicants features in the claims wherein wireless communication service is provided to a plurality of subscribers by a communication system where a resource controller controls at least one system parameter that impacts the availability of at least one system resource, and an operator interface is used to specify a minimum probability of communication service availability to the plurality of subscribers to the resource controller using an operator interface, and where the at least one system parameter is changed by the resource controller based on the minimum probability and on an algorithm and the minimum probability is obtained by the resource controller by adjusting the at least one communication system resource according to the changed system parameter, reads on Obhan in view of Sen as follows.

Obhan is disclosing a spectrum yield management system where a system operator via an operator interface sets user profiles that include user service classes, and therefore sets minimum probabilities of availability of channels for the subscribers. Once the service classes are set a Spectrum Yield Management System dynamically adjust the user access rules to obtain the service levels based on load and can readjust the communication resources based on the change parameters. Therefore, Obhan is disclosing an operator interface that sets minimum probability of access and a resource controller that based on the probability of access changes system parameters to obtain the minimum probability by adjusting system resources according to the

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changing parameters. Sen is clearly implying an algorithm however does not specifically state an algorithm, therefore, Sen modifies to show algorithms are obvious.

In response to the applicant's argument that Obhan in view of Sen does not describe a two-step process, the argument is not persuasive because the claims are not defining the consecutive steps but are indicating including steps and it is clear that Obhan in view of Sen includes at least two steps.

Therefore the argued limitations read upon the references cited.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4-9, and 11-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Obhan et al. (6,366,780) in view of Sen et al. (6,330,451).

Consider claims 1 and 8, Obhan discloses **a communication system that provides communication services to a plurality of communication devices over one or more radio frequency (RF) channels** (see abstract lines 1-4 and col. 2 lines 35-46). Obhan discloses spectrum yield management system that controls the allocation of system resources such as the allocation of channels to mobile subscribers, therefore, Obhan discloses **a resource controller that controls at least one system parameter that impacts the availability of at least one communication resource used to provide the communication services to the plurality of communication devices** (see col. 6 lines 23-35, col. 2 lines 35-46, col. 4 lines 63-67, and col. 5

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lines 1-23, where Obhan discusses that the SYM system controls access based on subscriber service classes). Obhan discloses an operator interface connected to the resource controller that allows a system operator to manually set a base transceiver subsystem watermark in real-time to guarantee service for certain classes of subscribers such as premium subscribers and non-premium subscribers where the watermark is to designate a channel reservation level that sets the probability that a subscriber is not able to complete a call, conversely the probability of completing a call, therefore, Obhan teaches **an operator interface that interfaces with the resource controller to interactively specify a minimum probability of communication service available for the plurality of the communication devices to the resource controller using the operator interface** (see col. 15 lines 14-25, col. 8 lines 41-53, and col. 11 lines 50-67, col. 5 lines 1-33, col. 16 lines 65-67, col. 17 lines 1-25, col. 12 lines 10-25, col. 5 lines 29-32, col. 5 lines 50-67, and col. 6 lines 1-5, where Obhan discusses that the operator sets the subscriber profiles, i.e., service classes). Obhan teaches **the at least one system parameter is changed by the resource controller based on a specified minimum probability and a minimum probability is obtained by the resource controller by adjusting the at least one communication resource according to the changed system parameter** (see col. 15 lines 14-25, col. 8 lines 41-53, and col. 11 lines 50-67, col. 5 lines 1-23, col. 16 lines 65-67, col. 17 lines 1-25, col. 12 lines 10-25, col. 5 lines 29-32, col. 5 lines 50-67, col. 6 lines 1-5, col. 11 lines 50-67, col. 22 lines 55-67, and col. 23 lines 1-16, where Obhan discusses that the SYM system is making offers to subscribers in real time to change the service classes based on operator set service classes, i.e., subscribers of lower classes can have more availability).

Obhan does show computer systems, i.e. SYM that dynamically controls the system parameter, however does not specifically show an algorithm. Sen teaches an algorithm (see col. 10 lines 63-67 and col. 11 lines 1-5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Obhan, and use an algorithm, as taught by Sen, thus allowing the computer system to perform a repeated function.

Consider claims 2 and 9, Obhan discloses the service availability is modified by changing at least one parameter essentially consisting of: a number of communication devices that receive the communication services; a number of communications devices that receive the communications services in a cell; a bit rate over an RF channel used to communicate data with the communication devices; and a coding algorithm used to communicate information with the plurality of communication devices (see col. 18 lines 17-67, col. 10 lines 10-30, col. 22 lines 55-67, col. 6 lines 40-56, col. 12 lines 10-25, col. 16 lines 3-22, and col. 23 lines 1-60).

Consider claim 4, Obhan discloses the resource controller monitors one or more system parameters to interactively modify communication service availability to the plurality of the communication devices (see col. 22 lines 55-67, col. 15 lines 14-25, col. 8 lines 41-53, col. 11 lines 50-67, col. 5 lines 1-23, col. 16 lines 65-67, col. 17 lines 1-25, col. 12 lines 10-25, col. 5 lines 29-32, col. 5 lines 50-67, col. 6 lines 1-5, col. 11 lines 50-67, col. 22 lines 55-67, col. 23 lines 1-16, and col. 23 lines 1-18).

Consider claims 5 and 11, Obhan discloses a system parameter essentially consists of at least one of a number of registered subscribers, load on a RF channel, load on a communication resource, a traffic mix, or a coding algorithm (see col. 5 lines 13-24, and col. 5 lines 50-67, col. 15 lines 14-25, col. 8 lines 41-53, and col. 11 lines 50-67, col. 5 lines 1-23, col. 16 lines 65-67,

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col. 17 lines 1-25, col. 12 lines 10-25, col. 5 lines 29-32, col. 5 lines 50-67, col. 6 lines 1-5 col. 11 lines 50-67, col. 22 lines 55-67, col. 23 lines 1-16 and col. 6 lines 5-16).

Consider claims 6, 12, and 13, Obhan discloses the resource controller monitors load on one or more communication resources over a defined period of time to determine how to control the at least one communication resource (see col. 5 lines 41-59, col. 5 lines 13-24, and col. 5 lines 50-67 and col. 6 lines 5-16).

Consider claims 7 and 14, Obhan discloses the resource controller monitors the time that a communication resource is out of service for deriving load distributions, to control the at least one communication resource (see col. 2 lines 62-67, col. 3 lines 1-11, col. 5 lines 15-23, col. 5 lines 40-50 and col. 6 lines 5-16).

4. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obhan in view of Sen, as applied to claims 1 and 8 above, and further in view of Salmivalli et al. (6,324,399).

Consider claims 15 and 16, Obhan discloses, the method and apparatus as modified by Sen above, wherein the operator interface is capable of adjusting a system parameter corresponding to a number of registered subscribers to modify the minimum probability of communication service availability to a the plurality of subscribers (see col. 16 lines 65-67, col. 17 lines 1-30, col. 8 lines 15-24, col. 13 lines 59-67, and col. 14 lines 1-15).

Obhan and Sen do not specifically disclose a system parameter corresponding to a number of registered subscribers to modify the minimum probability of communication service availability to a plurality of subscribers. Salmivalli teaches a system parameter corresponding to a number of registered subscribers to modify the minimum probability of communication service

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availability to the plurality of subscribers (see col. 3 lines 25-32 and col. 4 lines 14-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Obhan and Sen, and have a system parameter corresponding to a number of registered subscribers to modify the minimum probability of communication service availability to a the plurality of subscribers, as taught by Salmivalli, thus allowing the system capacity to remain sufficient to serve its own subscribers, as discussed by Salmivalli, (col. 2 lines 33-35).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

6. Any inquiry concerning this communication should be directed to Nick Corsaro at telephone number (703) 306-5616.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung, can be reached at (703) 308-7745. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth, Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 customer Service Office whose telephone number is (703) 306-0377.

Nick Corsaro


NAY MAUNG
SUPERVISORY PATENT EXAMINER